

# Selenium Speciation Results Summary

## Possum Point CCB Pond Closure Project

GAI Project Number C150132.00, Task 065

Samples were collected for selenium speciation on August 25, 2016. The lab report for this sampling has been included as an attachment to this document. A summary of the results from this sampling is shown in the table below:

Sample ID	Sampling Location	Constituent Concentrations (ug/L)					
		Selenium	Selenium IV (Selenite)	Selenium VI (Selenate)	Methylseleninic (MeSEIV)	Selenomethionine (SeMe)	Selenocyanate (SeCN)
160825-1612-5BOT	Pond D - 5 ft. below surface	10.2	2.0	6.6	ND	ND	ND
160825-1604-10BOT	Pond D - 10 ft. below surface	10.2	1.9	6.7	ND	ND	ND
160825-1752-PREINF	Treatment System Influent Before Storm Event (Approx. 14 ft. below surface)	5.4	0.19	3.1	ND	ND	0.14
160825-1554-22BOT	Pond D - 22 ft. below surface	3.4	0.56	1.4	ND	ND	ND
160825-1748-WELLS	Composite of Wells	ND	0.25	ND	ND	ND	ND
160825-1810-ABAG	After Bag Filters/Before Activated Alumina	5.1	0.16	2.6	0.18	ND	ND
160825-1757-AWAC	After Weak Acid Cation Exchange	4.2	0.49	1.9	0.27	ND	ND

NOTE: ND = Not Detected

### DATA OBSERVATIONS

- The average observed ratio of selenite/selenate in source water samples was approximately 74% selenite to 26% selenate.
- Selenium concentrations decreased as the pond sampling depth increased, indicating that selenium concentrations are higher towards the surface of pond and lower towards the bottom of the pond.
- The observed total selenium concentration in the composite well sample was <0.5 ug/L which registered as non-detect.
- Selenite concentrations in treated water samples (After Bag Filters & after Weak Acid Cation Exchange) were <1.0 ug/L.